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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/046,433

DATE: 01/28/2002  
TIME: 13:44:34

Input Set : A:\PF511P1 seqlisting.txt  
Output Set: N:\CRF3\01282002\J046433.raw

3 <110> APPLICANT: Human Genome Sciences, Inc.  
 5 <120> TITLE OF INVENTION: Human Tumor Necrosis Factor Receptor TR13 and TR14  
 7 <130> FILE REFERENCE: PF511P1  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/046,433  
 10 <141> CURRENT FILING DATE: 2002-01-16  
 12 <150> PRIOR APPLICATION NUMBER: 60/261,960  
 13 <151> PRIOR FILING DATE: 2001-01-17  
 15 <150> PRIOR APPLICATION NUMBER: 09/618,570  
 16 <151> PRIOR FILING DATE: 2000-07-14  
 18 <150> PRIOR APPLICATION NUMBER: 60/144,087  
 19 <151> PRIOR FILING DATE: 1999-07-16  
 21 <150> PRIOR APPLICATION NUMBER: 60/149,450  
 22 <151> PRIOR FILING DATE: 1999-07-18  
 24 <150> PRIOR APPLICATION NUMBER: 60/149,712  
 25 <151> PRIOR FILING DATE: 1999-08-20  
 27 <150> PRIOR APPLICATION NUMBER: 60/153,089  
 28 <151> PRIOR FILING DATE: 1999-09-10  
 30 <160> NUMBER OF SEQ ID NOS: 61  
 32 <170> SOFTWARE: PatentIn Ver. 2.0  
 34 <210> SEQ ID NO: 1  
 35 <211> LENGTH: 2554  
 36 <212> TYPE: DNA  
 37 <213> ORGANISM: Homo sapiens  
 39 <220> FEATURE:  
 40 <221> NAME/KEY: CDS  
 41 <222> LOCATION: (31)..(2283)  
 43 <400> SEQUENCE: 1  
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 45 1 5  
 46 10 15 20 25 30 35 40 45 50 55 60 65 70  
 48 gct ggt gag aaa cat tgc cat aac agg ggt ggc cta cac ttc aga atg 102  
 49 Ala Gly Glu Lys His Cys His Asn Arg Gly Gly Leu His Phe Arg Met  
 50 10 15 20 25 30 35 40 45 50 55 60 65 70  
 52 ctt ccc ctg caa acc tgg cac gta tgc aga caa gca ggg ctc ctc ttt 150  
 53 Leu Pro Leu Gln Thr Trp His Val Cys Arg Gln Ala Gly Leu Leu Phe  
 54 25 30 35 40 45 50 55 60 65 70  
 56 ctg caa act ttg ccc agc aac tct tat tca aat aaa gga gaa act tct 198  
 57 Leu Gln Thr Leu Pro Ser Asn Ser Tyr Ser Asn Lys Gly Glu Thr Ser  
 58 45 50 55 60 65 70  
 60 tgc cac cag tgt gac cct gac aaa tac tca gag aaa gga tct tct tcc 246  
 61 Cys His Gln Cys Asp Pro Asp Lys Tyr Ser Glu Lys Gly Ser Ser Ser  
 62 60 65 70  
 64 tgt aac gtg cgc cca gct tgc aca gac aaa gat tat ttc tac aca cac 294

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65 Cys Asn Val Arg Pro Ala Cys Thr Asp Lys Asp Tyr Phe Tyr Thr His  
66 75 80 85 342  
68 acg gcc tgc gat gcc aac gga gag aca caa ctc atg tac aaa tgg gcc  
69 Thr Ala Cys Asp Ala Asn Gly Glu Thr Gln Leu Met Tyr Lys Trp Ala  
70 90 95 100  
72 aag ccg aaa atc tgt agc gag gac ctt gag ggg gca gtg aag ctg cct 390  
73 Lys Pro Lys Ile Cys Ser Glu Asp Leu Glu Gly Ala Val Lys Leu Pro  
74 105 110 115 120 438  
76 gcc tct ggt gtg aag acc cac tgc cca ccc tgc aac cca ggc ttc ttc  
77 Ala Ser Gly Val Lys Thr His Cys Pro Pro Cys Asn Pro Gly Phe Phe  
78 125 130 135  
80 aaa acc aac aac agc acc tgc cag ccc tgc cca tat ggt tcc tac tcc 486  
81 Lys Thr Asn Asn Ser Thr Cys Gln Pro Cys Pro Tyr Gly Ser Tyr Ser  
82 140 145 150 534  
84 aat ggc tca gac tgt acc cgc tgc cct gca ggg act gaa cct gct gtg  
85 Asn Gly Ser Asp Cys Thr Arg Cys Pro Ala Gly Thr Glu Pro Ala Val  
86 155 160 165 582  
88 gga ttt gaa tac aaa tgg tgg aac acg ctg ccc aca aac atg gaa acg  
89 Gly Phe Glu Tyr Lys Trp Trp Asn Thr Leu Pro Thr Asn Met Glu Thr  
90 170 175 180 630  
92 acc gtt ctc agt ggg atc aac ttc gag tac aag ggc atg aca ggc tgg  
93 Thr Val Leu Ser Gly Ile Asn Phe Glu Tyr Lys Gly Met Thr Gly Trp  
94 185 190 195 200 678  
96 gag gtg gct ggt gat cac att tac aca gct gct gga gcc tca gac aat  
97 Glu Val Ala Gly Asp His Ile Tyr Thr Ala Ala Gly Ala Ser Asn  
98 205 210 215 726  
100 gac ttc atg att ctc act ctg gtt gtg cca gga ttt aga cct ccg cag 774  
101 Asp Phe Met Ile Leu Thr Leu Val Val Pro Gly Phe Arg Pro Pro Gln  
102 220 225 230  
104 tcg gtg atg gca gac aca gag aat aaa gag gtg gcc aga atc aca ttt  
105 Ser Val Met Ala Asp Thr Glu Asn Lys Glu Val Ala Arg Ile Thr Phe  
106 235 240 245 822  
108 gtc ttt gag acc ctc tgt tct gtg aac tgt gag ctc tac ttc atg gtg  
109 Val Phe Glu Thr Leu Cys Ser Val Asn Cys Glu Leu Tyr Phe Met Val  
110 250 255 260 870  
112 ggt gtg aat tct agg acc aac act cct gtg gag acg tgg aaa ggt tcc  
113 Gly Val Asn Ser Arg Thr Asn Thr Pro Val Glu Thr Trp Lys Gly Ser  
114 265 270 275 280 918  
116 aaa ggc aaa cag tcc tat acc tac atc att gag gag aac act acc acg  
117 Lys Gly Lys Gln Ser Tyr Thr Tyr Ile Ile Glu Glu Asn Thr Thr  
118 285 290 295 966  
120 agc ttc acc tgg gcc ttc cag agg acc act ttt cat gag gca agc agg  
121 Ser Phe Thr Trp Ala Phe Gln Arg Thr Thr Phe His Glu Ala Ser Arg  
122 300 305 310 1014  
124 aag tac acc aat gac gtt gcc aag atc tac tcc atc aat gtc acc aat  
125 Lys Tyr Thr Asn Asp Val Ala Lys Ile Tyr Ser Ile Asn Val Thr Asn  
126 315 320 325 1062  
128 gtt atg aat ggc gtg gcc tcc tac tgc cgt ccc tgt gcc cta gaa gcc  
129 Val Met Asn Gly Val Ala Ser Tyr Cys Arg Pro Cys Ala Leu Glu Ala

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Input Set : A:\PF511P1\seqlisting.txt  
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130	330	335	340														
132	tct	gtg	ggc	tcc	tcc	tgc	acc	tct	tgt	cct	gct	ggt	tac	tat	att	1110	
133	Ser	Asp	Val	Gly	Ser	Ser	Cys	Thr	Ser	Cys	Pro	Ala	Gly	Tyr	Tyr	Ile	
134	345															1158	
136	gac	cga	gat	tca	gga	acc	tgc	cac	tcc	tgc	ccc	cct	aac	aca	att	ctg	
137	Asp	Arg	Asp	Ser	Gly	Thr	Cys	His	Ser	Cys	Pro	Pro	Asn	Thr	Ile	Leu	
138																1206	
140	aaa	gcc	cac	cag	cct	tat	ggt	gtc	cag	gcc	tgt	ccc	tgt	ggt	cca		
141	Lys	Ala	His	Gln	Pro	Tyr	Gly	Val	Gln	Ala	Cys	Val	Pro	Cys	Gly	Pro	
142																1254	
144	ggg	acc	aag	aac	aac	aag	atc	cac	tct	ctg	tgc	tac	aat	gat	tgc	acc	
145	Gly	Thr	Lys	Asn	Asn	Lys	Ile	His	Ser	Leu	Cys	Tyr	Asn	Asp	Cys	Thr	
146																1302	
148	ttc	tca	cgc	aac	act	cca	acc	agg	act	ttc	aac	tac	aat	ttc	tcc	gct	
149	Phe	Ser	Arg	Asn	Thr	Pro	Thr	Arg	Thr	Phe	Asn	Tyr	Asn	Phe	Ser	Ala	
150																1350	
152	ttg	gca	aac	acc	gtc	act	ctt	gct	gga	ggg	cca	agc	ttc	act	tcc	aaa	
153	Leu	Ala	Asn	Thr	Val	Thr	Leu	Ala	Gly	Gly	Pro	Ser	Phe	Thr	Ser	Lys	
154																1398	
156	ggg	ttg	aaa	tac	ttc	cat	cac	ttt	acc	ctc	agt	ctc	tgt	gga	aac	cag	
157	Gly	Leu	Lys	Tyr	Phe	His	His	Phe	Thr	Leu	Ser	Leu	Cys	Gly	Asn	Gln	
158																1446	
160	ggt	agg	aaa	atg	tct	gtg	tgc	acc	gac	aat	gtc	act	gac	ctc	cggt	att	
161	Gly	Arg	Lys	Met	Ser	Val	Cys	Thr	Asp	Asn	Val	Thr	Asp	Leu	Arg	Ile	
162																1494	
164	cct	gag	ggt	gag	tca	ggg	ttc	tcc	aaa	tct	atc	aca	gcc	tac	gtc	tgc	
165	Pro	Glu	Gly	Glu	Ser	Gly	Phe	Ser	Lys	Ser	Ile	Thr	Ala	Tyr	Val	Cys	
166																1542	
168	cag	gca	gtc	atc	atc	ccc	cca	gag	gtg	aca	ggc	tac	aag	gcc	ggg	gtt	
169	Gln	Ala	Val	Ile	Ile	Pro	Pro	Glu	Val	Thr	Gly	Tyr	Lys	Ala	Gly	Val	
170																1590	
172	tcc	tca	cag	cct	gtc	agc	ctt	gct	gat	cga	ctt	att	ggg	gtg	aca	aca	
173	Ser	Ser	Gln	Pro	Val	Ser	Leu	Ala	Asp	Arg	Leu	Ile	Gly	Val	Thr	Thr	
174																1638	
176	gat	atg	act	ctg	gat	gga	atc	acc	tcc	cca	gct	gaa	ctt	ttc	cac	ctg	
177	Asp	Met	Thr	Leu	Asp	Gly	Ile	Thr	Ser	Pro	Ala	Glu	Leu	Phe	His	Leu	
178																1686	
180	gag	tcc	ttg	gga	ata	ccg	gac	gtg	atc	ttc	ttt	tat	agg	tcc	aat	gat	
181	Glu	Ser	Leu	Gly	Ile	Pro	Asp	Val	Ile	Phe	Phe	Tyr	Arg	Ser	Asn	Asp	
182																1734	
184	gtg	acc	cag	tcc	tgc	agt	tct	ggg	aga	tca	acc	acc	atc	cgc	gtc	agg	
185	Val	Thr	Gln	Ser	Cys	Ser	Ser	Gly	Arg	Ser	Thr	Thr	Ile	Arg	Val	Arg	
186																1782	
188	tgc	agt	cca	cag	aaa	act	gtc	cct	gga	agt	ttg	ctg	ctg	cca	gga	acg	
189	Cys	Ser	Pro	Gln	Lys	Thr	Val	Pro	Gly	Ser	Leu	Leu	Leu	Pro	Gly	Thr	
190																1830	
192	tgc	tca	gat	ggg	acc	tgt	gat	ggc	tgc	aac	ttc	cac	ttc	ctg	tgg	gag	
193	Cys	Ser	Asp	Gly	Thr	Cys	Asp	Gly	Cys	Asn	Phe	His	Phe	Leu	Trp	Glu	
194																1800	

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196	agc	gct	gct	tgc	ccg	ctc	tgc	tca	gtg	gct	gac	tac	cat	gct	atc	1878	
197	Ser	Ala	Ala	Ala	Cys	Pro	Leu	Cys	Ser	Val	Ala	Asp	Tyr	His	Ala	Ile	
198					605				610					615			
200	gtc	agc	agc	tgt	gtg	gct	ggg	atc	cag	aag	act	act	tac	gtg	tgg	cga	1926
201	Val	Ser	Ser	Cys	Val	Ala	Gly	Ile	Gln	Lys	Thr	Thr	Tyr	Val	Trp	Arg	
202					620				625				630				
204	gaa	ccc	aag	cta	tgc	tct	ggt	ggc	att	tct	ctg	cct	gag	cag	aga	gtc	1974
205	Glu	Pro	Lys	Leu	Cys	Ser	Gly	Gly	Ile	Ser	Leu	Pro	Glu	Gln	Arg	Val	
206					635				640			645					
208	acc	atc	tgc	aaa	acc	ata	gat	ttc	tgg	ctg	aaa	gtg	ggc	atc	tct	gca	2022
209	Thr	Ile	Cys	Lys	Thr	Ile	Asp	Phe	Trp	Leu	Lys	Val	Gly	Ile	Ser	Ala	
210					650				655			660					
212	ggc	acc	tgt	act	gcc	atc	ctg	ctc	acc	gtc	ttg	acc	tgc	tac	ttt	tgg	2070
213	Gly	Thr	Cys	Thr	Ala	Ile	Leu	Leu	Thr	Val	Leu	Thr	Cys	Tyr	Phe	Trp	
214	665				670				675			680					
216	aaa	aag	aat	caa	aaa	cta	gag	tac	aag	tcc	aag	ctg	gtg	atg	aat		2118
217	Lys	Lys	Asn	Gln	Lys	Leu	Glu	Tyr	Lys	Tyr	Ser	Lys	Leu	Val	Met	Asn	
218					685				690			695					
220	gct	act	ctc	aag	gac	tgt	gac	ctg	cca	gca	gct	gac	agc	tgc	gcc	atc	2166
221	Ala	Thr	Leu	Lys	Asp	Cys	Asp	Leu	Pro	Ala	Ala	Asp	Ser	Cys	Ala	Ile	
222					700				705			710					
224	atg	gaa	ggc	gag	gat	gta	gag	gac	gac	ctc	atc	ttt	acc	agc	aag	aat	2214
225	Met	Glu	Gly	Glu	Asp	Val	Glu	Asp	Asp	Leu	Ile	Phe	Thr	Ser	Lys	Asn	
226					715				720			725					
228	cac	tct	ttg	gga	aga	tca	aat	cat	tta	cct	cca	aga	gga	ctc	ctg	atg	2262
229	His	Ser	Leu	Gly	Arg	Ser	Asn	His	Leu	Pro	Pro	Arg	Gly	Leu	Leu	Met	
230					730				735			740					
232	gat	ttg	act	cag	tgc	cgc	tga	agacatcctc	aggaggccca	gacatggacc						2313	
233	Asp	Leu	Thr	Gln	Cys	Arg											
234	745				750												
236	tgtgagaggc	actgcctgcc	tcacctgcct	cctcaccttg	catagcacct											2373	
238	gcggcgattt	gggtgccagc	atcctgcaac	acccactgct	ggaaatctct	tcattgtggc										2433	
240	cttatacgat	gtttgaattt	cagatctttt	tttataagat	acccaaaccc	tcctttctgc										2493	
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256	Arg	Gly	Gly	Leu	His	Phe	Arg	Met	Leu	Pro	Leu	Gln	Thr	Trp	His	Val	
257					20				25			30					
259	Cys	Arg	Gln	Ala	Gly	Leu	Leu	Phe	Leu	Gln	Thr	Leu	Pro	Ser	Asn	Ser	
260					35				40			45					
262	Tyr	Ser	Asn	Lys	Gly	Glu	Thr	Ser	Cys	His	Gln	Cys	Asp	Pro	Asp	Lys	
263					50				55			60					
265	Tyr	Ser	Glu	Lys	Gly	Ser	Ser	Ser	Cys	Asn	Val	Arg	Pro	Ala	Cys	Thr	

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266	65	70	75	80												
268	Asp	Lys	Asp	Tyr	Phe	Tyr	Thr	His	Thr	Ala	Cys	Asp	Ala	Asn	Gly	Glu
269						85				90					95	
271	Thr	Gln	Leu	Met	Tyr	Lys	Trp	Ala	Lys	Pro	Lys	Ile	Cys	Ser	Glu	Asp
272								100		105					110	
274	Leu	Glu	Gly	Ala	Val	Lys	Leu	Pro	Ala	Ser	Gly	Val	Lys	Thr	His	Cys
275								115		120					125	
277	Pro	Pro	Cys	Asn	Pro	Gly	Phe	Phe	Lys	Thr	Asn	Asn	Ser	Thr	Cys	Gln
278								130		135					140	
280	Pro	Cys	Pro	Tyr	Gly	Ser	Tyr	Ser	Asn	Gly	Ser	Asp	Cys	Thr	Arg	Cys
281	145						150				155				160	
283	Pro	Ala	Gly	Thr	Glu	Pro	Ala	Val	Gly	Phe	Glu	Tyr	Lys	Trp	Trp	Asn
284								165		170					175	
286	Thr	Leu	Pro	Thr	Asn	Met	Glu	Thr	Thr	Val	Leu	Ser	Gly	Ile	Asn	Phe
287								180		185					190	
289	Glu	Tyr	Lys	Gly	Met	Thr	Gly	Trp	Glu	Val	Ala	Gly	Asp	His	Ile	Tyr
290								195		200					205	
292	Thr	Ala	Ala	Gly	Ala	Ser	Asp	Asn	Asp	Phe	Met	Ile	Leu	Thr	Leu	Val
293								210		215					220	
295	Val	Pro	Gly	Phe	Arg	Pro	Pro	Gln	Ser	Val	Met	Ala	Asp	Thr	Glu	Asn
296	225							225		230		235			240	
298	Lys	Glu	Val	Ala	Arg	Ile	Thr	Phe	Val	Phe	Glu	Thr	Leu	Cys	Ser	Val
299								245		250					255	
301	Asn	Cys	Glu	Leu	Tyr	Phe	Met	Val	Gly	Val	Asn	Ser	Arg	Thr	Asn	Thr
302								260		265					270	
304	Pro	Val	Glu	Thr	Trp	Lys	Gly	Ser	Lys	Gly	Lys	Gln	Ser	Tyr	Thr	Tyr
305								275		280					285	
307	Ile	Ile	Glu	Glu	Asn	Thr	Thr	Ser	Phe	Thr	Trp	Ala	Phe	Gln	Arg	
308								290		295					300	
310	Thr	Thr	Phe	His	Glu	Ala	Ser	Arg	Lys	Tyr	Thr	Asn	Asp	Val	Ala	Lys
311	305							305		310		315			320	
313	Ile	Tyr	Ser	Ile	Asn	Val	Thr	Asn	Val	Met	Asn	Gly	Val	Ala	Ser	Tyr
314								325		330					335	
316	Cys	Arg	Pro	Cys	Ala	Leu	Glu	Ala	Ser	Asp	Val	Gly	Ser	Ser	Cys	Thr
317								340		345					350	
319	Ser	Cys	Pro	Ala	Gly	Tyr	Tyr	Ile	Asp	Arg	Asp	Ser	Gly	Thr	Cys	His
320								355		360					365	
322	Ser	Cys	Pro	Pro	Asn	Thr	Ile	Leu	Lys	Ala	His	Gln	Pro	Tyr	Gly	Val
323								370		375					380	
325	Gln	Ala	Cys	Val	Pro	Cys	Gly	Pro	Gly	Thr	Lys	Asn	Asn	Lys	Ile	His
326	385							385		390		395			400	
328	Ser	Leu	Cys	Tyr	Asn	Asp	Cys	Thr	Phe	Ser	Arg	Asn	Thr	Pro	Thr	Arg
329								405		410					415	
331	Thr	Phe	Asn	Tyr	Asn	Phe	Ser	Ala	Leu	Ala	Asn	Thr	Val	Thr	Leu	Ala
332								420		425					430	
334	Gly	Gly	Pro	Ser	Phe	Thr	Ser	Lys	Gly	Leu	Lys	Tyr	Phe	His	His	Phe
335								435		440					445	
337	Thr	Leu	Ser	Leu	Cys	Gly	Asn	Gln	Gly	Arg	Lys	Met	Ser	Val	Cys	Thr
338								450		455					460	

Use of e or xaa has been detected in the sequence listing.  
Review the sequence listing to insure a corresponding  
explanation is presented in the <220> to <223> fields of  
each sequence using n or Xaa.

VERIFICATION SUMMARY  
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L:9 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:621 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:867 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:875 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:899 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
L:923 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10  
L:927 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10  
L:929 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10  
L:952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11  
L:956 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11  
L:1014 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1020 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
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L:1417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:1419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:1421 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:1437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20  
L:1528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:1530 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:1532 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:1534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:1536 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:1595 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:1597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:1599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:2404 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48  
L:2410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48

VERIFICATION SUMMARY  
PATENT APPLICATION: US/10/046,433

DATE: 01/28/2002  
TIME: 13:44:35

Input Set : A:\PF511P1 seqlisting.txt  
Output Set: N:\CRF3\01282002\J046433.raw

L:2412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48  
L:2436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49  
L:2452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50